

Math 1040—Introduction to Statistics

Section 50, TWR, 5:00 – 6:50 pm, NIB 135, CRN: 31231

Summer 2011 – 3 credits

Instructor: Randy Green

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Office Hours: 3:00 – 4:00 pm or by appointment

Phone: 669 – 7235

Office: NIB 123?

Required Text: *Elementary Statistics: Picturing the World* (4th edition) by Larson and Farber

Calculator Requirement: You **must** have one of the following graphing calculators: TI-83 (any version), TI-84 (any version), or TI-89 (any version)

Prerequisite: You **must** meet at least one of the following minimum requirements. Moreover, this requirement must have been met within the past two years.

- Passed Math 1010 with a “C” or better.
- Earned ACT math score of 23 or higher.
- Earned a suitable CPT score. [For details on this test, go to http://new.dixie.edu/math/which_classes_should_i_take.php.]

Course Description

Math 1040 is an introduction to the basic concepts and methods used in statistical data analysis. Course topics include descriptive statistics, sampling methods, and inferential statistics. The course emphasizes problem solving and critical thinking. Furthermore, Math 1040 is a lecture course with homework assignments, lab assignments, and tests—including a non-comprehensive final exam. Importantly, the basic principles learned in Math 1040 can greatly benefit anyone and everyone, regardless of which future career a person chooses.

Course Objectives

All classes in mathematics at Dixie State College of Utah support the general education goals of the college. Each mathematics class will:

- Require students to perform mathematical processes including fractions, percentages, decimals, proportions/ratios, algebraic equations, and/or calculus techniques
- Provide students with application problems that use a variety of methods including arithmetical, algebraic, and geometric methods
- Challenge students to make inferences from mathematical models that include formulas, graphs, and tables
- Provide students with real-life applications that use a variety of mathematical functions

Upon successful completion of Math 1040, a student will demonstrate the ability to:

- Compute and interpret descriptive statistics, including mean, median, mode, standard deviation, and interquartile range
- Employ and interpret graphical representations of data
- Construct confidence intervals for population parameters of interest
- Determine the sample size required to satisfy a predetermined goal
- Test null hypotheses related to the mean, the proportion, or the variance of a sample
- Test null hypotheses related to the difference in mean or the difference in proportion between two samples
- Interpret the results of null hypothesis tests, including the role of the significance level α
- Interpret bivariate correlations and linear regression models
- Apply various other statistical tests, including goodness-of-fit tests, independence tests, and ANOVA

Disability Resource Center

If you are a student with a documented physical or mental impairment that will substantially limit a major life activity, please contact the Disability Resource Center (DRC) on the main campus. The Center Coordinator and staff will assist you in evaluating your eligibility for services. If you are deemed eligible, reasonable accommodations that are appropriate for your disability will be assigned. If you have any questions concerning this process, please contact the Center at (435) 652-7516 or go to the DRC on the ground floor of the Financial Aid Office.

Policy for absences related to college functions

Please refer to college student police 5.23 attendance

<http://www.dixie.edu/humanres/polstu.html>

Important dates/deadlines

<http://www.dixie.edu/reg/calendar.html>

Website Resources

Library	http://library.dixie.edu/
Writing Center	http://new.dixie.edu/english/dsc_writing_center.php
Testing Center	http://new.dixie.edu/testing/
Tutoring	http://dsc.dixie.edu/tutoring/index.htm
Career Center	http://new.dixie.edu/career/

Grading

Exams (100 pts. each)	500 points
HW (10 pts. each)	50 points
Labs (25 pts. each)	50 points

There are 600 total points possible. Your grade will be determined according to the percentage of points you earn in this course.

> 94.0% A	≥ 90.0% A–	≥ 86.0% B+	≥ 82.0% B
≥ 79.0% B–	≥ 75.0% C+	≥ 70.0% C	≥ 67.0% C–
≥ 64.0% D+	≥ 60.0% D	< 60.0% F	

Homework will be due on the day following the test or as otherwise instructed. Grades will be given on a scale of 0 – 10 based on organization, neatness, and completeness. Answers alone may not constitute credit. Clearly label your homework with chapter and section numbers.

Labs will be graded on a scale of 0 – 25 based on correctness as well as organization, neatness, and completeness. Instructions and other information will be given later.

Make-up **exams** will be given at the discretion of the instructor. It is expected that students take the exams on the scheduled dates.

Please refer to the calendar for math 1040 at www.greenshouse.weebly.com for assignment dates and details. Course schedules, assignments, and exam dates are subject to change as circumstances dictate.

Testing Center Hours

Monday – Friday

9 AM – 6 PM

Wednesday

9 AM – 10 PM

Saturday and Sunday

Closed